

SPAWAR Charleston's Tidewater Node of the FORCEnet Composeable Environment

By Sandy Mieczkowski

The Space and Naval Warfare Systems Center Charleston has designed a Tidewater Node of the FORCEnet Composeable Environment (FnCE) strategically located on the Norfolk Naval Base. The facility is close to major commands, such as the Combined Fleet Forces Command, Naval Network Warfare Command, Fleet Information Warfare Command, U.S. Joint Forces Command, Allied Command Atlantic and numerous fleet support commands.

The Tidewater FnCE Node is a state-of-the-art multifunctional, multimedia advanced collaborative engineering environment center that fully supports the FORCEnet concept of operations and SPAWAR's implementation objectives. The facility acts as a FORCEnet portal networked with the entire SPAWAR claimancy. It also provides collaborative connectivity with all SPAWAR enterprise labs.

SPAWAR's mission for this environment is to expedite the efficient exchange of information (voice, video and data) with flag officers, key developers and fleet customers so the Navy can capitalize on information superiority to generate transformational combat effectiveness to the warfighter. SPAWAR is helping the Navy communicate and share critical information through exercise planning, mission planning, monitoring, simulations and advanced concept technology demonstrations (ACTDs). Typical projects suited for the facility include:

- FORCEnet requirements analysis, demonstrations and briefings
- Exercise planning, monitoring and simulation
- ACTDs
- Flag-level technical collaboration and planning
- Human Systems Integration (HSI) testing and demonstrations
- Mission planning and rehearsals

The FnCE has held three successful conferences and a host of other briefings/demonstrations since its completion in October 2004. The initial conferences held in November 2004 included the SPAWAR Knowledge Management/Knowledge Discovery (KM/KD) Conference and the Trident Warrior 05 (TW05) Objectives Development Workshop.

The SPAWAR KM/KD Conference incorporated a diverse assembly of local, state and federal government representatives, academia and industry subject matter experts from the local area and throughout the United States. State Senators Nick Rerras (R-VA) and Yvonne B. Miller (D-VA) were honored guests at this event. Mr. Ron Lowder of the SPAWAR Tidewater Account Management Office spearheaded the conference and will continue a series of KM/KD conferences to be held in the Tidewater FnCE Node.

The TW05 Objectives Development Workshop was the first major TW05 planning event to utilize SPAWAR's FnCE Node capabilities.

TW05 is the third major FORCEnet Sea Trial experiment in NETWARCOM's Trident Warrior series, which is the Navy's annual FORCEnet Sea Trial event. The second TW05 event hosted in the FnCE Node was the Initial Planning Conference held in December 2004. It has been the largest conference held to date with nearly 200 attendees, and it was the first to take advantage of the FnCE's cutting-edge command and control capabilities.

The Tidewater FnCE Node will continue to be the vital TW05 planning environment throughout 2005. Future TW05 planning events will include a mid-planning conference in May. TW05 will utilize the FnCE node in a distributed technology test in July, and again in August, when it will be a significant part of a cognitive wargame. The FnCE Node will be the location of the final TW05 planning conference in October and will provide exercise control during TW05 execution in December 2005. The FnCE Node has proven to be a perfect match for FORCEnet planning and development.

Tidewater FnCE Node features include:

- 5,500 square feet of a state-of-the-art, collaborative environment
- Seating capacity for more than 150
- A 2x6 cube Barco Display Wall able to display hundreds of images from various sources simultaneously
- PRI connectivity for multiple video teleconferences (VTCs)
- NIPRNET connectivity
- Extensive cabling infrastructure for ease of reconfigurability
- Mobile equipment cabinets
- Audio-video broadcast network streaming capability
- Four 61-inch plasma screens with simulated display capabilities
- Video overlay Smart Boards for each of the plasma screens
- Extensive audio/video switching and distribution network
- High-quality sound reinforcement and distribution
- Real-time webcasting for demonstrations and presentations
- DREN connectivity
- T-3 data connectivity
- Attention to Advanced Human Factors:
 - Articulating table, high-performance lighting, 24-hour chairs

Within the next six months we will be adding modular security barriers to maximize the reconfigurability of the facility to accommodate concurrent events. SIPRNET and enhanced video collaboration capability will also be added further enhancing the technological features of the SPAWAR Tidewater FnCE Node.

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